REMARKS

Applicants respectfully request favorable reconsideration of this application, as amended.

Foreign Priority

Applicants note that the claim for foreign priority has been acknowledged, and that all certified copies of the priority documents have been received in this National Stage application from the International Bureau. *See*, Office Action Summary (Page 1).

Allowable Subject Matter

Applicants note with appreciation the indication of allowable subject matter within Claims 3–9. *See*, Office Action at Page 3.

Drawing Objections

The drawings were objected to for various reasons, and FIGS. 1, 2 and 8 have been amended as suggested by the Office Action on Page 2. No new matter has been added, and Applicants respectfully submit that the drawing objections have been overcome.

Claim Rejections and Amendments

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' admitted prior art (hereinafter "AAPA") in view of Ohsuge (EP 1,126,626 A2), Dahlback (US 2004/0042411) and Araya (US 7,133,436), Claim 2 was rejected as being unpatentable over AAPA, Ohsuge, Dahlback and Araya, in view of Jasper (US 5,140,615), Claim 10 was rejected as being unpatentable over AAPA and Araya, in view of Ohsuge, and Claim 11 was rejected as being unpatentable over AAPA, Araya and Ohsuge, in view of Jasper. Applicants respectfully traverse.

Claim 1 has been amended to correct an antecedence oversight; no new matter has been added.

In the interests of securing an expedited Notice of Allowance, and without acceding to the rejections, Claim 10 has been amended to recite certain features of the claimed invention more perspicuously. Support for this amendment may be found, generally, in the Specification at Pages 8–15, FIGS. 1–8; no new matter has been added. Applicants respectfully submit that none of the cited references, taken either singly or in combination, teaches or suggests all of the features recited by the claims.

Claims 1 and 10 Are Allowable over the Cited References

Applicants respectfully submit that AAPA merely discloses searching the first maximum point exceeding the noise threshold in the multi-path profile, while Claims 1 and 10 recite, *inter alia*, "judging whether there is a maximum point exceeding the noise threshold in the multi-path profile." Further, AAPA discloses that there may be multiple maximum points exceeding the noise threshold, that it is only necessary to determine the first maximum point, and that the first maximum point is taken as the first path. This process differs markedly from judging whether a maximum point exceeding the noise threshold exists, without considering whether the maximum point is the first maximum point, so the maximum point is not always the first maximum point. Consequently, AAPA fails to disclose "judging whether there is a maximum point exceeding the noise threshold in the multi-path profile," as recited by Claims 1 and 10.

Araya discloses detecting the highest reception level and the lowest reception level from the delay profile. *See*, e.g., Figure 19, reference SE1. While Araya discloses that the highest reception level is the highest point in the delay profile, Araya fails to teach or suggest that the maximum point is not always the highest point but a proper point, e.g., a maximum point in a local area in the delay profile. Consequently, Araya also fails to disclose "judging whether there is a maximum point exceeding the noise threshold in the multi-path profile," as recited by Claims 1 and 10.

AAPA further discloses that the location of this maximum point will be determined as the first path. *See*, e.g., Specification at Page 2. To the contrary, Claim 1 recites "obtaining a candidate first path," while Claim 10 recites "outputting a candidate first path." The candidate first path is obtained after the maximum point is carried out side-lobe suppression, and is not taken as the first path unless subsequent processes is performed for the candidate first path; however, in AAPA, the location of this maximum point is directly determined as the first path. Consequently, the claimed candidate first path is different from the first path in AAPA, and AAPA fails to disclose this feature.

Dahlback discloses that an increase in the path search rate results if new paths exists, and a decrease in the path search rate results if no new paths exist. *See*, e.g., Paragraph 0040. In sharp contrast, Claim 1 recites "judging ... if yes ... otherwise, deciding that no first path exists." Consequently, Dahlback fails to disclose this feature.

Araya further discloses that the procedure ends if reception level of reference path is not larger than two thresholds. *See*, e.g., Figure 19, reference SE3. Ohsuge discloses that the procedure ends if the number of finger is larger than "i." *See*, e.g., Figure 9: Reference s20. However, Claim 1 recites "judging ... if yes ... otherwise, deciding ... and exiting the entire process of first-path detection." In other words, the entire process of first-path detection exits if there is no maximum point exceeding the noise threshold in the multi-path profile, which differs from both Araya and Ohsuge. Consequently, both Araya and Ohsuge fail to disclose "exiting the entire process of first-path detection," as recited by Claim 1.

Ohsuge discloses a multi-path detection circuit, such that even when the interval of the correlated peaks (path) is narrow to cause overlap on the delay profile, the multi-path can be precisely separated into each individual path. *See*, e.g., Paragraph 0014, 0019, etc. Applicants submit that Ohsuge only provides a multi-path detection circuit that can be applied to an environment of the path being ambiguous, but does not need to judge, according to the location of the candidate first path, whether the first path is ambiguous. Ohsuge also discloses an example of the delay profile in which a plurality of paths are located in close proximity and in which levels of respective paths are substantially equal. In this case, the first peak component is removed from the delay profile to detect the detecting position 2, and subsequently the second peak component is removed from the delay profile to detect the detecting position 3. *See*, e.g., Paragraphs 0072 to 0074, Figures 10A to 10C, etc. Consequently, Ohsuge fails to disclose "judging according to the location of the candidate first path whether the first path is ambiguous," as recited by Claim 1, and as similarly recited by Claim 10.

Furthermore, Ohsuge discloses that the multi-path can be precisely separated into each individual path. *See*, e.g., Paragraph 0019. Applicants submit that Ohsuge merely provides a separation of multi-path instead of a correction of first-path ambiguity. Consequently, Ohsuge fails to disclose "carrying out correction of first-path ambiguity," as recited by Claim 1, and as similarly recited by Claim 10.

Moreover, Ohsuge only shows the delay profile in the case of one path. *See*, e.g., Figure 5a. Consequently, Ohsuge fails to disclose "outputting the location of candidate first path as the location of final first path," as recited by Claim 1.

Applicants submit that none of the remaining references, taken either singly or in combination, cure the deficiencies of AAPA, Araya, Dahlback and Ohsuge.

Accordingly, Applicants respectfully submit that Claims 1 and 10 are allowable over the cited references. Furthermore, Claim 2, depending from Claim 1, and Claim 11, depending from Claim 10, are also allowable, at least for the reasons discussed above. Applicants also submit that the cited references fail to teach or suggest the features recited by Claims 2 and 11, and, consequently, that these claims are independently allowable.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance and should now be passed to issue.

A Notice of Allowance is respectfully solicited.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 50-2036.
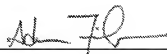
Respectfully submitted,

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